

DEPARTMENT OF TRANSPORTATION

ESC/OE MS #43

1737 30TH. Street 2ND. Floor

SACRAMENTO, CA 945816



October 25, 1999

04-SM,Ala-92-R26.4/R30.2,R0.0/R4.3

04-045014

Addendum No. 5

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in SAN MATEO AND ALAMEDA COUNTIES IN FOSTER CITY AND HAYWARD FROM 3.8 km WEST OF THE COUNTY LINE TO 0.4 km EAST OF THE SAN MATEO-HAYWARD BRIDGE TOLL PLAZA.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on October 27, 1999.

This addendum is being issued to revise the Project Plans, and the Notice to Contractors and Special Provisions.

On Project Plan Sheet 232, the following is added under "PRESTRESSING NOTES":

"Path of center of gravity of prestressing steel to approximate a parabola. There shall be a minimum of 2 hold downs within a span. The center of gravity of the prestressing steel is located 350 mm +/- mm from the bottom of girder at both ends."

In the Special Provisions, Section 10-1.35, "BRIDGE SUPERSTRUCTURE", the table is revised as follows:

ALLOWABLE CONSTRUCTION LOADINGS				
Alternative Type	Nominal Resistance, kN	Vertical Load, kN	Horizontal Load, kN	Moment, kN-m
1065 mm, Alternative No. 1				
Bents 315-569	4360	2180	55	500
Bents 571-919	4360	2180	75	500
Bents 921-1141	4360	2180	90	500
1065 mm, Alternative No. 2				
Bents 315-570	6230	3115	55	500
Bents 573-918	6230	3115	75	500
Bents 921-1140	6230	3115	90	500
610 mm, Alternative No. 3				
Bents 315-570	1130	565	15	150
Bents 571-920	1130	565	20	150
Bents 921-1141	1130	565	25	150

In the Special Provisions, Section 10-1.36, "CONCRETE STRUCTURES", subsection "CONCRETE COATING", is revised as attached.

To Proposal and Contract book holders:

- INDICATE RECEIPT OF THIS ADDENDUM BY FILLING IN THE NUMBER OF THIS ADDENDUM IN THE SPACE PROVIDED ON THE SIGNATURE PAGE OF THE PROPOSAL.
- Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.
- Inform subcontractors and suppliers as necessary.

This office is sending this addendum by confirmed facsimile to all book holders to ensure that each receives it.

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

NICK YAMBAO, Chief
Office of Plans, Specifications &
Estimates
Division of Office Engineer

Attachment

CONCRETE COATINGS.—

All exposed concrete surfaces, except riding surfaces and concrete barrier; and the upper one-third of the concrete piles shall be covered with a concrete coating system conforming to the requirements specified herein.

The coating system shall consist of an epoxy primer and a compatible 100% aliphatic polyurea coating or an epoxy primer and an aromatic polyurea coating with a compatible aliphatic polyurethane finish coat. The epoxy primer and aliphatic polyurethane finish coat shall be as recommended by the manufacturer of the selected polyurea coating. A polyurea coating is defined as the reaction product between a polyisocyanate and an amine. The polyurea coating shall have the following properties:

Property	Requirement
Elongation (ASTM Designation: D 412)	Minimum 300%
Tensile Strength (ASTM Designation: D 412)	17 MPa
Surface Hardness (ASTM Designation: D 2240, Shore A)	90 to 98
Abrasion loss (Taber, 1 Kg, H-18 wheel)	Maximum 200 mg
Water Absorption (ASTM Designation: D 471)	Maximum 1% @ 24 hours

The coating system shall have the following properties:

Property	Requirement
Adhesion to Concrete (ASTM Designation: D 4541)	Minimum 2 MPa
Dry Film Thickness (ASTM Designation: D 6132)	Minimum 1.6 mm plus 0.1 mm with aliphatic polyurethane finish
Color Stability (ASTM Designation: D 2565)	No visible color change after 500 hours

All components of the coating system shall be supplied by the same manufacturer. The coating system shall be continuous and free from visible pinholes and holidays.

Concrete coatings shall be used in conformance with the manufacturer's written recommendations and these special provisions.

Each shipment of concrete coating shall be accompanied by the manufacturer's recommendations for application of concrete coating and a Certificate of Compliance conforming to Section 6-1.07, "Certificates of Compliance," of the Standard Specifications.

The coating shall be applied at least 30 days after fabrication of the precast members. At least 48 hours prior to application of the coating, the entire concrete surface shall be abrasive blast cleaned. Holes with a minimum dimension of 1.3 mm or smaller, as recommended by the coating manufacturer, shall be filled with epoxy mortar. Cracks greater than 0.25 mm and less than 0.76 mm shall be repaired with epoxy prior to coating the member. Cracks greater than 0.76 mm shall be repaired in conformance with the manufacturer's recommendations.

The epoxy adhesive shall be furnished and applied in conformance with the provisions in Sections 95-1, "General," and 95-2.013, Binder (Adhesive), Epoxy Resin Base (State Specification 8040-01F-03)," of the Standard Specifications.

Surface preparation and all coating operations shall be in accordance with the requirements of the National Association of Corrosion Engineers, RP-0892 unless otherwise superseded by these special provisions or the coating manufacturers written requirements.

The color of the concrete coating shall closely match the color of the concrete members to be coated.

Cleaning shall remove all dirt, debris and other deleterious materials including removal of existing cement matrix sufficient to expose the fine aggregates with minimal exposure of the coarse aggregates.

After cleaning, the concrete surface shall be air blown to remove loose surface material. The concrete surface shall be dry when coating is applied. The polyurea component of the concrete coating system shall be applied in one or more applications to a minimum dry film thickness of 1.5 mm. The top surface of the member shall not require coating.

The Contractor shall arrange for a manufacturer's technical representative to be on site to advise and instruct the Contractor and the Engineer on the manufacturer's recommended installation practices and procedures for the duration of the coating operation.

Full compensation for furnishing and applying concrete coatings and for services of the manufacturer's technical representative shall be considered as included in the contract price paid for the various items of work involved and no separate payment will be allowed therefor.